

REMARKS

The rejection of Claims 6-9 under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over, U.S. 4,375,418 (Zoleski et al), is respectfully traversed.

Zoleski et al disclose a lubricating oil composition for use in medium and high speed marine diesel engine crank cases and having a total base number from about 5 to 40, and containing, *inter alia*, a mineral lubricating oil; about 0.1-5, preferably about 0.5-2.0, weight % of an overbased calcium sulfonate (paragraph bridging columns 2 and 3); 0.1-7 weight % of an overbased sulfurized calcium phenate (paragraph bridging columns 4 and 5); and an alkenyl succinimide. While the alkenyl succinimide may be derived from an amine having from 2 to 12 nitrogen atoms, i.e., x is from 0 to 10 in the formula at column 2, lines 53-63, Zoleski et al discloses that x is preferably 3 or 4 or mixtures thereof (column 4, lines 17-18). When x is 3, the carbon/nitrogen weight ratio is necessarily 1.37; when x is 4, the ratio is necessarily 1.42. Thus, the preferred alkenyl succinimide embodiments of Zoleski et al are outside the terms of the present claims, which require a maximum such ratio of 1.25. Zoleski et al do not specifically disclose any polyamines having a carbon/nitrogen weight ratio of 1.25 or less. The particular working examples of Zoleski et al do not specify the chemical structure of their alkenyl succinimide beyond disclosing that it is derived from a polyamine. See Table I, footnote (3). In addition, Zoleski et al generally employ less than the minimum 10% by weight amount of present component (a), even if their overbased sulfurized calcium phenate could be construed as overlapping the presently-recited overbased phenate. (Applicants maintain that there is no overlap.) The particular working examples of Zoleski et al employ 4.65% by weight of their overbased sulfurized calcium phenate and 1.83% by weight of their overbased calcium sulfonate. See Table I, footnotes (4) and (5).

Thus, Zoleski et al do not anticipate the presently-claimed invention. At best, Zoleski et al is available under 35 U.S.C. § 103(a) only. However, the comparative data in the specification demonstrates the importance of the above-discussed carbon/nitrogen weight ratio maximum of 1.25. Compare the data for Examples 1-4 with the data for Comparative Example 1, in Table 1-1 and Table 1-2, at page 19 of the specification. The examples and comparative example (as well as the other comparative examples) were subjected to both an acid neutralization capability test and a stability test, as described in the specification at page 15, line 4 through page 16, line 3. The examples produced a substantially larger pressure increase, meaning a higher corrosion, wear-resisting ability, compared to the comparative example. In addition, in the stability test, the stored sample of the examples gave no precipitate, while the stored sample of the comparative example gave some precipitate.

The above-discussed data could not have been predicted by Zoleski et al.

For all the above reasons, it is respectfully requested that the rejection over Zoleski et al be withdrawn.

The rejection of Claims 6 and 7 under 35 U.S.C. § 102(b) as anticipated by U.S. 5,334,329 (Vinci et al) is respectfully traversed. Claims 6 and 7 now each contain the limitations of Claims 8 and 9, not subject to this rejection, with further limitations. Accordingly, it is respectfully requested that it be withdrawn.

The rejection of Claims 8 and 9 under 35 U.S.C. § 103(a) as unpatentable over Vinci et al in view of Zoleski et al, is respectfully traversed. Vinci et al disclose a lubricating oil containing a base oil, at least one ashless dispersant, and a particular demulsifier. Vinci et al disclose that many types of ashless dispersants are known in the prior art, and any of these is suitable for use in their invention (sentence bridging columns 5 and 6). Vinci et al then devote the disclosure following this sentence through column 25, line 37, describing applicable ashless dispersants. As noted by the Examiner, Example B-1 and Example B-2

appear to meet the terms of the presently-recited succinimide component. However, other examples are outside the terms of the present succinimide component, such as Example B-5, which uses tetraethylene pentamine, precisely the polyamine used in Comparative Example 1 of the specification, discussed above. Thus, Vinci et al make no distinction between any of the many ashless dispersants within their broad disclosure. Zoleski et al does not remedy this basic deficiency in Vinci et al because, as discussed above, Zoleski et al actually prefers polyamines outside the terms of the present claims. In addition, Vinci et al disclose and suggest nothing with regard to acid-neutralizing promotion, the presence of an acid-neutralizing promoter, or a total base number of their lubricating oil.

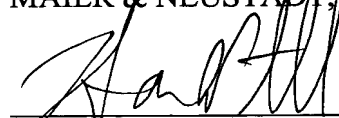
For all the above reasons, it is respectfully requested that this rejection be withdrawn.

Applicants respectfully call the Examiner's attention to the Information Disclosure Statement (IDS) filed May 30, 2003. The Examiner is respectfully requested to initial the Form PTO 1449 submitted therewith, and include a copy thereof with the next Office communication.

All of the presently pending claims in this application are now believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

Respectfully submitted,

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